Installation

To install of your product, please read this guide manual carefully and completely.

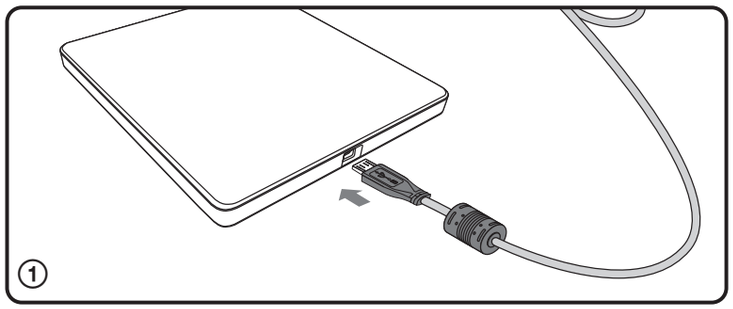
Hardware Installation

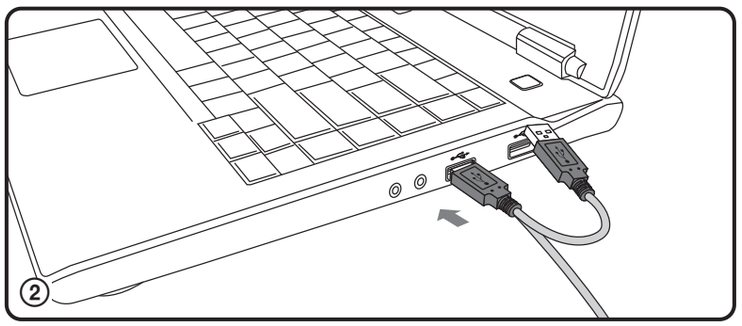
NOTES

- Please pay attention to handling Electrostatic Sensitive Devices, you may use anti-static products such as wrist straps, heel straps, mats to protect your body from electrostatic.
- Make sure you have a personal computer with one or two open USB ports before connecting the drive to your computer.

Connecting to computer

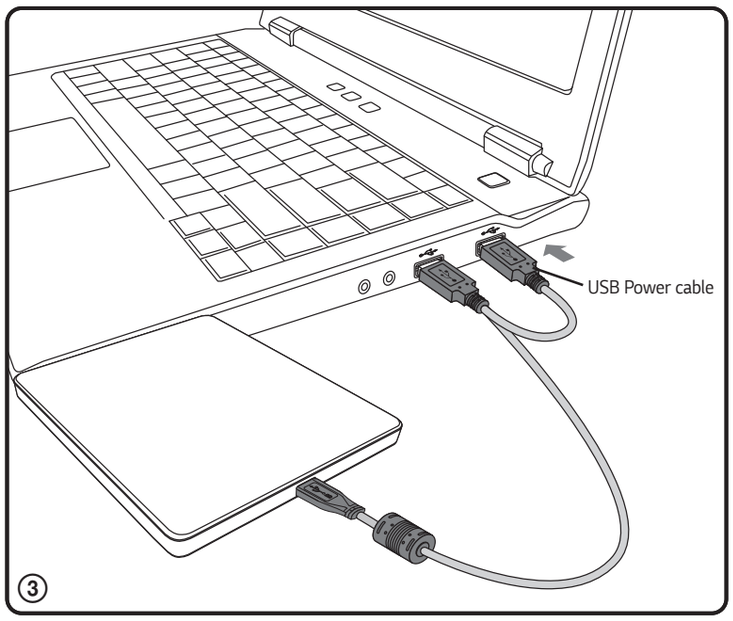
- Connect the drive to the computer as shown in figure.
  ① Connect the USB (micro type) cable to the drive.
  ② Connect the other end of the USB cable (Y type) to your computer.
  ③ Connect the USB Power cable to your computer. The drive may get its power from the PC USB power. All systems may not meet USB power requirements and full performance may not be achieved.





NOTES

- Please do not connect the USB cables by any means other than specified above. Using the wrong type of cable with this drive can cause it to malfunction.
- The appliance is not intended for use by young children or infirm persons without supervision. Young Children should be supervised to ensure that they do not play with appliance.
- If the appliance is supplied from a cord extension set or an electrical portable outlet device, the cord extension set on electrical portable outlet device must be positioned so that it is not subject to splashing or ingress of moisture.



The drive supports both Windows and Mac®. To use it properly, please follow directions below.

How to Eject Disc from the drive

- When using with Mac
  - Click the eject button located on Mac OS menu or toolbar.
- When using with Windows
  - Press the eject button in the front of the product.

NOTES:

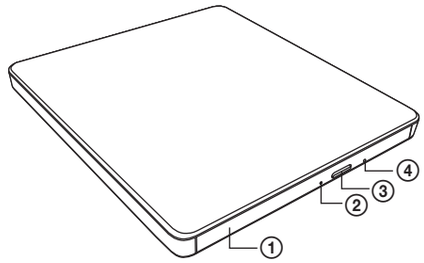
- An application included in the Mac OS must be used to play data records or DVD Movie titles through Mac OS.
  - When recording data: Finder Burn, iTunes must be used.
  - When playing a DVD Movie title : A DVD Player must be used.
- The Mac OS do not include an application that can play Blu-ray movie titles. Separate playback software for Mac OS must be used to play Blu-ray movie titles through Mac OS.
- DVD/Blu-ray movie titles cannot be recorded because of the copyright protection.

Location and Functions

The drive's appearance and specifications may change without prior notice.
This following is the general figure of the design of the drive.

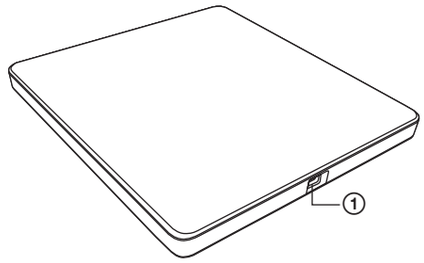
Front View

① **Disc tray**
② **Drive activity indicator**
③ **Eject Button**
④ **Manual Emergency Eject Hole**
The emergency eject procedure should only be used to retrieve your disc if the drive fails to eject.
⚠ **Caution:** Shut down the power supply when this eject will be used.



Rear View

① **USB Connector (micro)**
This connector is used to connect to the USB cable.



Data Storage

Quick Set-up Guide

Slim Portable UHD Blu-ray / DVD Writer

BP60, WP60

To install of your product, please read this guide manual carefully and completely.

Features

- Universal Serial Bus (USB) 2.0 interface for high-speed data transfer.
- Ultra Slim Portable Blu-ray/DVD Writer
- Buffer Under Run error protection technology
- Emergency eject support
- Combination of CD-R/RW, DVD-R/RW, DVD+R/RW, DVD+R DL, DVD-R DL, DVD-RAM, M-Disc(DVD+R SL, BD-R SL), BD-R(SL/DL/TL/QL, LTH) and BD-RE(SL/DL/TL)drive functions into one drive.
- CD Family, DVD-ROM, BD-ROM read compatible.
- Supports UHD BD Movie Play.
- PC USB powered, no AC adapter needed.

Cautions

System meeting the following requirements is needed in order to use USB 2.0 operation with this drive.

- Computer that is equipped with a USB 2.0 – compliant USB connector or PCI adapter card, and on which the USB 2.0 EHCI (Enhanced Host Controller Interface) driver software has been installed.

The USB 2.0 EHCI driv software is supplied with currently available PCI adapter cards that conform to USB 2.0.

If you want to know in detail, please contact your USB 2.0 adapter dealer or consult your PC manufacturer, or consult the Microsoft Corporation Web site.

MFL67902583

System Environment

Computer

This unit can be operated in the system environment explained here.

System requirements	• CPU : Pentium 2.4 GHz or higher • O/S : Windows 10/8.1/8.0/7, Mac OS X v.10.7.5 or higher • RAM : 1 GB or more • HDD : 30 GB or more of available space (60 GB for Blu-ray Disc)	
Interface	USB 2.0 (3.0 Compatible)	
Recommended media manufacturer	BD-R SL: Sony/Panasonic BD-R TL/QL: Mitsubishi Kagaku Media, Sony BD-RE SL: Verbatim DVD±R : Mitsubishi Kagaku Media, Verbatim DVD+RW : Mitsubishi Kagaku Media, Verbatim M-Disc (DVD+R SL, BD-R) : Millenniata CD-R : Mitsubishi Kagaku Media, Verbatim, Taiyo Yuden CD-RW : LG, Mitsubishi Kagaku Media, Verbatim	BD-R DL: Panasonic BD-R SL LTH: Taiyo Yuden BD-RE DL/TL: Panasonic/ SONY DVD-RW : Mitsubishi Kagaku Media DVD ± R DL : Mitsubishi Kagaku Media, Verbatim DVD-RAM : Panasonic

* Compatibility problem in write/read function may occur with some media depending on the media manufacturing quality.

* To achieve maximum Record & Write speed your system may require data to be copied first to the computer's hard drive rather than directly from another source disc or drive.

Specifications

General	Supported Discs		BD-ROM(Single/Dual), UHD BD-ROM(DL/TL), BD-R(Single/Dual, LTH), BD-RE(Single/Dual), BD-R/RE XL(3 Layer), DVD-ROM (Single/ Dual), DVD-RW, DVD-R, DVD+RW, DVD+R, DVD+R Double layer, DVD-R Dual layer, DVD- RAM, M-Disc(DVD+R SL, BD-R SL), CD-DA, CD-Extra, CD-ROM, CD-ROM XA, CD-TEXT, CD-R, CD-RW, Photo-CD (Single & Multi-Session), Video CD, DVD-VIDEO, BD-MV	
	Interface		USB 2.0 (3.0 Compatible)	
Read/Write Speed *3	Media		Write :	Read :
	BD-ROM	SL/DL	-	6 x max.
		UHD DL / TL	-	6 x max.
	BD-R	SL/DL	2 x, 4 x, 6 x	6 x max.
		TL/QL(4 Layer)	2 x, 4 x	6 x max.
		SL LTH	2 x, 4 x, 6 x	6 x max.
	M-Disc (BD-R SL)		2x, 4x	6 x max.
	BD-RE	SL/DL	2 x	6 x max.
		TL	2 x	4x max.
	BDMV(AACS Compliant Disc)(SL/DL)		-	6 x max.
	DVD-ROM	SL/DL	-	8 x max.
	DVD-R	SL	2 x, 4 x, 8 x	8 x max.
		DL	2 x, 4 x, 6 x	8 x max.
	DVD+R	SL	2.4 x, 4 x, 8 x	8 x max.
		DL	2.4 x, 6 x	8 x max.
	M-Disc (DVD+R SL)		4 x	8 x max.
	DVD+RW		2.4 x, 3.3 x, 4 x, 6 x, 8 x	8 x max.
	DVD-RW		2 x, 3 x, 4 x, 6 x	8 x max.
	DVD-RAM		2 x, 3 x, 5 x	5 x max.
	DVD-Video(CSS Compliant Disc)(SL/DL)		-	8 x max.
	CD-R		10 x, 16 x, 24 x	24 x max.
	CD-RW		4 x, 10 x, 16 x	24 x max.
	CD-ROM/CD-DA		-	24 x max.

Software

Install the appropriate Application Software before using this unit.

* Please uninstall any previous Application software you may have loaded on your PC in order to prevent possible compatibility issues.

Once you have installed the application software, you may (if you wish) begin to reinstall previous software, taking note for errors. We recommend using the drive with the latest software as some problems encountered when using the drive can be solved by updating the software.

Average Access Time ($^1/_3$ Stroke)		BD-ROM : 250 ms typ. DVD-ROM : 200 ms typ. CD-ROM : 200 ms typ.
Buffer capacity		4 MB
MTBF		60,000 Power On Hours (Duty Cycle 10 %)
Power Requirement		5 V DC
Operating Environment	Temperature	5 °C to 40 °C
	Humidity	15 % to 85 %
Storage Environment	Temperature	-40 °C to 60 °C
	Humidity	5 % to 90 RH

- For the sake of periodic improvements, the drive's specifications and appearance are subject to change without prior notice.
- The maximum data transfer rate and access time varies according to the performance capabilities of the PC.
- We have taken all possible measures to assure the quality of our products, but we cannot be responsible for the consequences if defect occurs.

Playing UHD Blu-ray Disc Movies *NOTICE*

CPU	Intel 7th Gen. Kabylake Core i3 or higher	
GPU	Intel HD Graphics 630 or higher	
Mother Board	Intel SGX* support	*Software Guard Extension
	HDMI 2.0a (HDR*) support	*High Dynamic Range
	HDCP* 2.2 & 1.4 support	*High-bandwidth Digital Content Protection
O/S	Windows 10	
RAM	6GB or higher	
Network	Need to network access	
Display	UHD (3,840 x 2,160 pixel) resolution support	
	HDMI 2.0a (HDR*) support	*High Dynamic Range
	HDCP* 2.2 & 1.4 support	*High-bandwidth Digital Content Protection

Worldwide corporate site : http://www.hlds.co.kr

Safety Instructions

⚠ CAUTION : The laser used in the Writer can damage your eyes.
Do not attempt to open the cover. To reduce the risk of electric shock, do not remove the cover (or back). There are no user-serviceable parts inside. Refer servicing to qualified service personnel. Use of controls or performance of procedures other than those specified herein may result in hazardous radiation exposure.

⚠ WARNING : To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

⚠ VORSICHT : Der in diesem Laufwerk benutzte Laser kann Ihre Augen schädigen.Versuchen Sie keinesfalls, die Abdeckung zu öffnen. Um die Gefahr eines elektrischen Schocks zu reduzieren, sollten Sie die Abdeckung (oder Rückseite) keinesfalls entfernen.Im Inneren des Geräts befinden sich keine Teile, die vom Benutzer selbst gewartet werden können. Überlassen Sie die Wartung qualifizierten Kundendiensttechnikern. Beachten Sie bei der Benutzung von Bedienelementen und der Durchführung von Prozeduren unbedingt die Anweisungen dieses Handbuchs, da andernfalls gefährliche Strahlung freigesetzt werden kann.

⚠ WARNUNG : Setzen Sie das Laufwerk keinesfalls Regen oder Feuchtigkeit aus, um die Gefahr eines Brandes oder elektrischen Schocks zu reduzieren.

⚠ ATTENTION : Le faisceau laser utilisé dans ce graveur est dangereux pour les yeux.
Ne pas tenter d'ouvrir le couvercle. Ne déposer ni la façade, ni le panneau arrière (risque d'électrocution). Aucun élément interne n'est réparable par l'utilisateur. L'utilisation de commandes ainsi que l'exécution de procédures autres que celles spécifiées dans le présent guide risque de provoquer une dangereuse exposition aux radiations.

⚠ AVERTISSEMENT : Ne pas exposer ce matériel à la pluie ou à l'humidité (risques d'incendie et d'électrocution).

⚠ PERICOLO : Il dispositivo di lettura e scrittura utilizzato in questo masterizzatore utilizza un raggio laser che, se osservato da vicino, può danneggiare la vista. Evitare di smontare il coperchio dell'apparecchio. Al fine di prevenire eventuali folgorazioni, evitare di smontare l'apparecchio. All'interno dell'apparecchio non sono presenti parti che richiedono manutenzione da parte dell'utente. In caso di difetti o guasti, rivolgersi ad un Centro di Assistenza Tecnica. L'esecuzione di procedure diverse da quella espressamente indicate in questo manuale può provocare pericolose esposizioni alle radiazioni laser.

⚠ ATTENZIONE : Al fine di evitare cortocircuiti o principi di incendio, evitare di esporre questo apparecchio alla pioggia o ad una eccessiva umidità ambientale.

⚠ PRECAUCION : El láser utilizado en la unidad puede dañar sus ojos. No intente abrir la tapa. Para reducir el riesgo de descarga eléctrica, no quite la tapa (ni la parte posterior). No hay piezas internas que deba mantener el usuario. El servicio de mantenimiento debe efectuarlo personal técnico cualificado. El uso de controles o la ejecución de procedimientos distintos de los especificados en este manual pueden ser causa de exposición a radiación peligrosa.

⚠ ADVERTENCIA : Para reducir el riesgo de fuego o descarga eléctrica, no exponga este aparato a la lluvia ni a la humedad.

⚠ CUIDADO : O laser utilizado no Gravador pode provocar danos nos seus olhos.Não tente abrir a tampa. Para reduzir os riscos de choques eléctricos, não retire a tampa (nem o painel posterior). Não existem peças ajustáveis pelo utilizador no interior do aparelho. Solicite a assistência de pessoal qualificado para quaisquer trabalhos de reparação. A utilização dos comandos ou a execução de procedimentos para além dos especificados neste manual podem resultar numa exposição perigosa às radiações.

⚠ AVISO : Para reduzir o risco de incêndio ou choque elétrico não exponha este aparelho á chuva ou humidade.

CLASS 1	LASER PRODUCT
LASER KLASSE 1	PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT
CLASE 1	PRODUCTO LÁSER
CLASSE 1	PRODOTTO LASER

CAUTION : CLASS 3B VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO THE BEAM.
ADVARSEL : KLASSE 3B SYNLIG OG USYNLIG LASERSTRÅLING I ÅBEN TILSTAND OG VED AFBRUDTLÅSEFUNKTION. UNDGÅ ATBLIVE RAMTAF LASERSTRÅLEN.
VARO! : LUOKKA 3B AVATTAESSAJAKUMOTTAESSALUKITUS NÄKYVÄÄ JANÄKYMÄTÖNTÄ LASERSÄTEILYÄ. VÄLTÄ LASERSÄTEILLE ALTISTUMISTA.
ATTENTION : CLASSE 3B RAYONNEMENTLASER VISIBLE ETINVISIBLE EN CAS D'OUVERTURE ETENCLENCHEMENTS DEFECTUEUX, EVITER L'EXPOSITION AU FAISCEAU.
VORSICHT : SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG DER KLASSE 3B WENN ABDECKUNG GEÖFFNETUND SICHERHEITSVERRIEGELUNG ÜBERBRÜCKTVERMEIDEN SIE ES, SICH DEM STRAHLAUSZUSETZEN.
ADVARSEL : KLASSE 3B SYNLIG OG USYNLIG LASERSTRÅLING NÅR ÅPNES OG LÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.
VARNING : KLASS 3B SYNLIG OCH OSYNLIG LASERSTRÅLNING FÖREKOMMER NÄR OCHMELLANLÅSETFÖRSTÖRS. UNDVIK EXPONERING UNDER STRÅLEN.

- Microsoft® and Windows® are trademarks registered in the United States and other countries by the Microsoft Corporation.
- The company names and product names written in this manual are trademarks or registered trademarks of the respective companies.

FCC COMPLIANCE STATEMENT

Note : This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an Authorized Service Center for help.

- FCC WARNING
  Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- This Drive is for use only with UL listed personal computers that have installation instructions detailing user-installation of card cage accessory.